Quick Start Guide
9145 NID

Overview
This document provides instructions for installation and initial configuration of the Canoga Perkins model 9145 NID (Network Interface Device).

Parts List
1 x 9145-4 (AC power) or 9145-5 (DC power)
1 x User (USR) port interface module (typically a UTP module, but can also be an optical module)
1 x Extension (EXT) port interface module (typically an optical module)
1 x Set of 19" or 23" optional rack mount ears
1 x AC power cord

Tools Required
1 x EIA-232 DB-9 cable (not included)
1 x Phillips/flat screwdriver (if mounting in a relay rack)

Step 1: Unpacking
Unpack the 9145 and check the unit for damage. If the unit is damaged, contact Canoga Perkins' Tech Support line, (800) 360-6642, and ask for an RMA.

Step 2: Module Insertion
It is very likely that the USR and EXT ports are already occupied by the correct interfaces for the application from the factory. However, if the interfaces are ordered separately, follow the next steps to configure the modules.

Insert the user interface module in the USR port/slot of the NID. The module should slide into the slot with ease and make contact with the rear connector without excessive force. Tighten the thumbscrew and do the same for the EXT port.

Figure 1. 10/100/1000Base-T UTP module insertion in USR port

Figure 2. Optical module insertion in the EXT port

Step 3: Rackmount Installation

To mount the 9145 in a rack, carefully remove the four rubber feet located under the NID using a small, flat screwdriver. Install the rack mount ears using the screws provided in the kit onto the 9145 chassis. Screw in three on each side of the NID using a Phillip's head screw driver as shown in Figure 3.

Figure 3. Rackmount ear installed

When mounting the unit in a rack, be sure to accommodate at least 1RU, 1.75", of space in the rack due to the height of the NID. See Figure 4.

Figure 4. 9145 installed in a rack

Step 4: Applying Power

For AC powered NIDs, power up the device by inserting the provided power cord to an AC outlet. During the boot-up stage, which may take up to 20 seconds, the LEDs will turn amber and the STA LED will flash until the boot-up process is complete.

For DC powered NIDs, if a -48VDC power source is used, connect the grounding strap between the Chassis Ground and the +VDC terminals. If connecting to a +48VDC source to the NID, connect the grounding strap between the Chassis Ground and the –VDC terminals. With power now applied, the unit will initiate the boot-up process. All LEDs in the front will flash amber and the STA LED will flash until the boot-up process is complete.

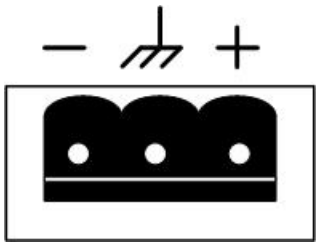

Figure 5. DC power entry in the rear of the NID

Step 5: Management Access

To access the user interface of the NID, a VT100 session must be created through HyperTerminal or a comparable VT100 terminal. Connect a DB-9 EIA-232, straight cable from your PC or laptop (COM 1or any open COM port) to the EIA-232 port of the NID. Access HyperTerminal session from your laptop or terminal through the Programs/Accessories/Communications/Hyperterminal menu.

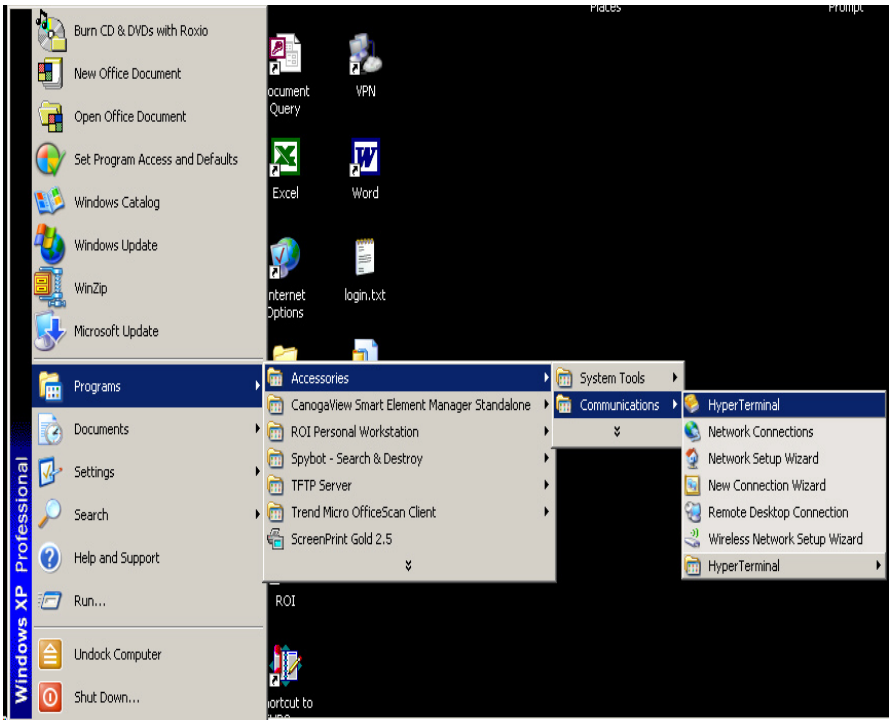

Figure 6. Accessing HyperTerminal

Assign an icon and a name for the session.

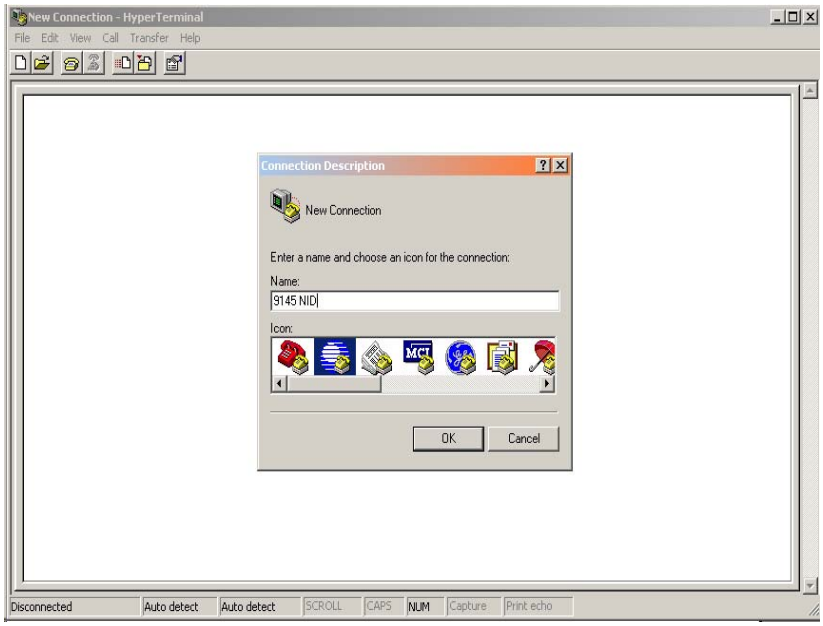

Figure 7. Connection Properties

After a name and icon is assigned, the COM port properties menu will appear. Configure the connection settings to the values listed:

- Bits per second: 9600bps
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: None

If the HyperTerminal screen is scrolling up, make sure that "Terminal Emulation" in the Properties menu is set to VT100. If the screen shows random symbols instead of letters, verify that the terminal speed is set to 9600bps.

Step 6: Logging In

In the log-in screen, type the default Username "admin" and Password "admin" to access the user interface. The MAIN MENU will appear and will allow you to make necessary configuration changes based on your selection. Refer to the user manual for more detailed information.

```
Canoga Perkins Corp.        Ethernet Network Interface Device       06-Jan-1970
Model 9145-4 V03.40 F76                                             04:11:30
-------------------------------------LOGIN SCREEN-------------------------------------------


      Please Enter Login Username :  admin
      Please Enter Login Password  :  *****




-----------------------------------Messages-------------------------------------------------
```

Figure 8. Log In screen

```
Canoga Perkins Corp.        Ethernet Network Interface Device       06-Jan-1970
Model 9145-4 V03.40 F76                                             04:11:40
-------------------------------------MAIN MENU-------------------------------------------------

                    1) System Configuration
                    2) Diagnostics
                    3) Link Status
                    4) System Alarms
                    5) Layer 2 Statistics
                    6) RMON Group 1 Statistics
                    7) System Log
                    8) Utilities
                    9) Software Upgrade
                   10) Manage Logged In Users
                   11) Logout

                    Select [1-11]:

-----------------------------------Messages-------------------------------------------------
```

Figure 9. Main Menu screen

Step 7: Module Configuration

From the Main Menu, type "1," enter, then "2," enter, to access the Functional Configuration screen. The Functional Configuration screen will allow you to change the settings of the USR and EXT port modules, and Table 1 lists the modules available for the NID and their respective settings. Verify the link speed and duplex of the local and remote device and change the settings of the modules accordingly.

To change the settings, type the number of the setting you wish to change and use the space bar to toggle through the selections. Use the ESC key to cancel your selection or to return to the earlier screen.

```
Canoga Perkins Corp.        Ethernet Network Interface Device        07-Jan-1970
Model 9145-4 V03.40 F76                                              01:24:34
----------------------------------FUNCTIONAL CONFIGURATION----------------------------------
                                    Local                                  Remote
                                                                           Offline

User Port Speed/Duplex      Link Down
Ext Port Speed/Duplex       Link Down

1) User Port Setting        Autonegotiate
2) Ext Port Setting         Autonegotiate
3) RMTF                     Disabled
4) Link Loss Fwd            Disabled
5) Flow Control             Disabled
6) PVST+ BPDU Filtering     Disabled
7) Sideband Management      Disabled

Hit SPACE: toggle selection.  ENTER: accept.  ESC: cancel.

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```

Figure 10. Functional Configuration screen

Module Type	Settings
10/100/1000 UTP	Autonegotiate Disable 10M Half Duplex 10M Full Duplex 100M Half Duplex 100M Full Duplex 1000M Half Duplex 1000M Full Duplex
10Mbps Optical	Disable 10M Half Duplex 10M Full Duplex
100Mbps Optical	Disable 100M Half Duplex 100M Full Duplex
1000Mbps Optical	Autonegotiate Disable 1000M Half Duplex 1000M Full Duplex

Table 1. Module type and settings

Step 7: Cable Connection

Once the desired changes are made to the modules, the UTP or fiber optic cables can be installed. A Category 5 UTP cable can now be installed from the 10/100/1000Mbps UTP module to your switch. Canoga Perkins recommends at Category 5e UTP cable or better for 1000BaseT installations. Remember that the USR port is the port connected to your local/client device and the EXT port is the port facing the network/trunk. Connect the fiber to the optical module.

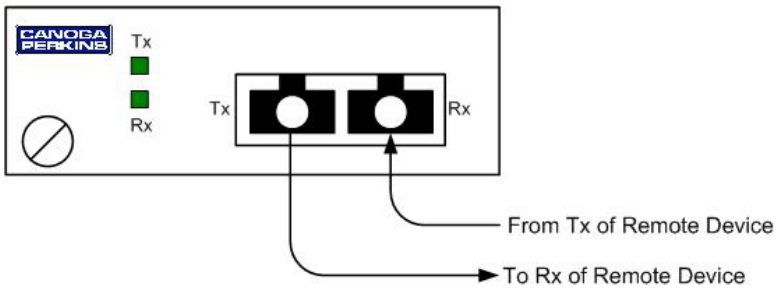

Figure 11. Fiber optic cable connection

Step 8: IP Address/Subnet Mask/Default Gateway Set-up

From the System Configuration menu, type "5" then "enter" to access the IP/VLAN Configuration screen.

```
Canoga Perkins Corp.        Ethernet Network Interface Device        07-Jan-1970
Model 9145-4 V03.40 F76                                              01:24:34
----------------------------------SYSTEM CONFIGURATION-----------------------------------------


                        1) Hardware Information
                        2) Functional Configuration
                        3) VLAN Configuration
                        4) VLAN/P-Bit Translation Tables
                        5) IP/SNMP Agent Configuration
                        6) Trap Configuration
                        7) Security Configuration
                        8) Account Configuration
                        9) System Info Configuration

                           Select [1-9]: 5

-----------------------------------Messages-------------------------------------------------
```

Figure 12. System Configuration screen

To configure the IP address, select "5," press enter, and type the IP address you wish to assign to the unit. Press enter to accept the changes. The Subnet Mask and Default Gateway must be entered at this point as well, and note that the Subnet Mask and Default Gateway must be in the same class as the IP address, i.e. Class A, Class B or Class C.

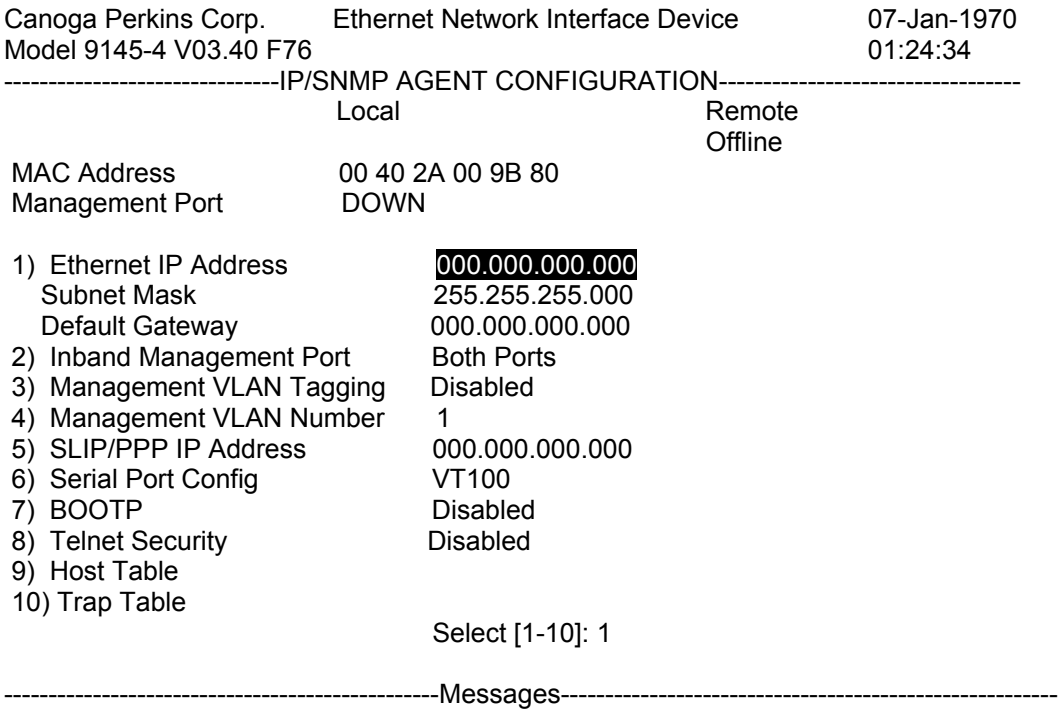

Figure 13. IP/SNMP Agent Configuration screen

This concludes the initial set up of the 9145 NID. For detailed information on other functions of the 9145 NID, consult the user manual or contact Canoga Perkins' Tech Support line at (818) 718-6300.